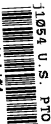


08/16/01



31054 U.S. PTO

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PTO/SB/05 (08-00)

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<b>UTILITY PATENT APPLICATION TRANSMITTAL</b> <i>(Only for new nonprovisional applications under 37 CFR 1.53(b))</i>		Attorney Docket No. <b>PF509P2</b> First Inventor <b>Betenbaugh et al.</b> Title <b>Engineering Intracellular Sialylation Pathways</b> Express Mail Label No. _____	
<b>APPLICATION ELEMENTS</b> <i>See MPEP chapter 600 concerning utility patent application contents</i>		ADDRESS TO: Assistant Commissioner for Patents Box Patent Application Washington, DC 20231	
1. <input checked="" type="checkbox"/> Fee Transmittal Form (e.g., PTO/SB/17) <i>(Submit an original, and a duplicate for fee processing)</i> 2. <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. 3. <input checked="" type="checkbox"/> Specification [Total pages: 106] <i>(Preferred arrangement set forth below)</i> - Descriptive title of the invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure 4. <input checked="" type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets: 40] 5. <input checked="" type="checkbox"/> Oath or Declaration [Total Pages 2] a. <input checked="" type="checkbox"/> Unexecuted (original or copy) b. <input type="checkbox"/> Copy from a prior application (37 CFR 1.63(d)) <i>(for continuation/divisional with Box 17 completed)</i> i. <input type="checkbox"/> DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). 6. <input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76.	7. <input type="checkbox"/> CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix) 8. Nucleotide and/or Amino Acid Sequence Submission <i>(if applicable, all necessary)</i> a. <input checked="" type="checkbox"/> Computer Readable Form (CRF) b. Specification Sequence Listing on: i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or ii. <input checked="" type="checkbox"/> paper (12 pages) c. <input checked="" type="checkbox"/> Statements verifying identity of above copies <b>ACCOMPANYING APPLICATION PARTS</b> 9. <input type="checkbox"/> Assignment Papers (cover sheet and document(s)) 10. <input type="checkbox"/> 37 CFR 3.73(b) Statement <input type="checkbox"/> Power of Attorney 11. <input type="checkbox"/> English Translation Document (if applicable) 12. <input type="checkbox"/> Information Disclosure Statement/ Form PTO/SB/08 <input type="checkbox"/> Copies of Citations 13. <input type="checkbox"/> Preliminary Amendment 14. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) <i>(should be specifically accented)</i> 15. <input type="checkbox"/> Certified copy of Priority Document(s) <i>(if foreign priority is claimed)</i> 16. <input type="checkbox"/> Other:		
17. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: <input type="checkbox"/> Continuation <input type="checkbox"/> Divisional <input type="checkbox"/> Continuation-in-Part (CIP) of prior application No. _____ Prior (CIP) information Examiner Group/Art Unit: _____			
For CONTINUATION OR DIVISIONAL APPS only The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 3b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.			
<b>18. CORRESPONDENCE ADDRESS</b>			
<input checked="" type="checkbox"/> Customer Number or Bar Code Label <span style="border: 1px solid black; padding: 2px;">22195</span> or <input type="checkbox"/> Correspondence address below			
NAME _____			
ADDRESS _____			
CITY _____		STATE _____	ZIP CODE _____
COUNTRY _____		TELEPHONE _____	FAX _____
NAME (Print/Type) <b>Jonathan L. Klein</b>		Registration No. (Attorney/Agent) <b>41,119</b>	
SIGNATURE <i>Jonathan L. Klein</i>		Date <b>8/16/01</b>	

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08/16/01

# FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

Complete if Known

Application Number	Not assigned
Filing Date	Concurrently herewith
First Named Inventor	Betenbaugh et al.
Examiner Name	Not assigned
Group Art Unit	Not assigned
Attorney Docket Number	PF509P2
Total amount of payment	(S) 1,356.00

## METHOD OF PAYMENT (CHECK ONE)

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayment to:

Deposit Account No. 08-3425

Deposit Account Name: Human Genome Sciences, Inc.

- ☒ Charge Any Additional Fee Required  
Under 37 CFR §§ 1.16 and 1.17

- ☐ Applicant claims small entity status  
See 37 CFR 1.27

2. ☐ Payment Enclosed.

☐ Check ☐ Credit Card ☐ Money Order ☒ Other\*

\*Charge any deficiencies or credit any overpayments in the fees or fee calculations of Parts 1, 2 and 3 below to Deposit Account No. 08-3425

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity Fee Code	Small Entity Fee Code	Entity Fee Code	Fee Description	Fee Paid
101	710	201	Utility filing fee	710.00
106	320	206	Design filing fee	
107	490	207	Plant filing fee	
108	710	208	Resouse filing fee	
114	150	214	Provisional filing fee	

Subtotal (1) \$ 710.00

### 2. EXTRA CLAIM FEES

Total claims	47	- 20*	27	Fee from below	Fee Paid
Indep. claims	5	- 3**	2		\$ 160.00
Multiple Dependent					\$

Large Entity Fee Code	Small Entity Fee Code	Entity Fee Code	Fee Description
103	18	203	9 Claims in excess of 20
102	80	202	40 Independent claims in excess of 3
104	270	204	135 Multiple dependent claim
108	80	208	40 **Reissue independent claims over original patent
110	18	210	9 **Reissue claims in excess of 20 and over original patent

Subtotal (2) (S) 1,356.00

### 3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
105	130	205	65	Surcharge - late provisional filing fee or cover sheet	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	Fee filing a request for <i>ex parte</i> reexamination	
112	920	112	920	Requesting publication of SR prior to Examiner action	
113	1,840	113	1,840	Requesting publication of SR after Examiner action	
135	110	215	55	Extension for reply within first month	
136	390	216	195	Extension for reply within second month	
137	890	217	445	Extension for reply within third month	
138	1,390	218	695	Extension for reply within fourth month	
128	1,890	228	945	Extension for reply within fifth month	
119	310	219	155	Notice of Appeal	
120	310	220	155	Filing a brief in support of an appeal	
121	270	221	135	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,240	241	620	Petition to revive - unintentional	
142	1,240	242	620	Utility reissue fee (or reissue)	
143	440	243	220	Design reissue fee	
144	600	244	300	Plant issue fee	
122	130	122	130	Petition to the Commissioner	
123	50	123	50	Petitions related to provisional applications	
126	240	126	240	Submission of Information Disclosure Statement	
181	40	481	40	Recording each patent assignment per property (lines number of properties)	
146	710	246	355	Filing a submission after final rejection (37 CFR 1.129(b))	
149	710	249	355	For each additional invention to be examined (37 CFR 1.129(b))	
179	710	279	355	Request for Continued Examination (RCE)	
169	190	169	900	Request for expedited examination of a design application	

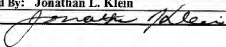
Other fee (specify):

Other fee (specify):

\*Reduced by Basic Filing Fee Paid

Subtotal (3)

\$

Submitted By: Jonathan L. Klein	Registration No.: 41,119	Telephone	301-309-8504
Signature: 		Date	8/16/01

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: Betenbaugh et al.

Application No.: Not assigned

Group Art Unit: Not assigned

Filed: Concurrently herewith

Examiner: Not assigned

Title: **Engineering Intracellular Sialylation**

**Pathways**

Docket No. PF509P2

**STATEMENT UNDER 37 C.F.R. 1.821(f)**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

The undersigned attorney for applicants hereby states that the information contained in the paper copy of the sequence listing submitted herewith is identical to the information contained in the computer-readable form of the sequence listing submitted herewith.

Respectfully submitted,

Dated: August 16, 2001

  
Jonathan L. Klein (Reg. No. 41,119)  
Attorney for Applicants

**Human Genome Sciences, Inc.**  
9410 Key West Avenue  
Rockville, MD 20850  
(301) 251-6015 (phone)

JKE/DS/ur